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FACT SHEET REGARDING ENVIRONMENTAL ACTION TAKEN AT STUDY AREA 2  
HERNDON ANNEX WITH TRANSMITTAL LETTER NTC ORLANDO FL  
11/1/2000  
NAVFAC SOUTHERN



**TETRA TECH NUS, INC.**

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December 6, 2000

Ms. Barbara Nwokike (Code 1873) (IRP RPM)  
P.O. Box 190010  
2155 Eagle Drive  
North Charleston, SC 29419-9010

Reference: CLEAN Contract No. N62467-94-D-0888  
Contract Task Order No. 0024

Subject: Fact Sheet for Study Area 2, November 2000  
Naval Training Center, Orlando, Florida

Dear Ms. Nwokike:

Enclosed is a fact sheet for Study Area 2. As you requested, 30 copies of the fact sheet were express delivered to the Caretaker Site Office in Orlando on December 5, 2000. If you have any questions regarding fact sheet, please contact me at (865) 220-4730.

Sincerely,

Steven B. McCoy, P.E.  
Task Order Manager

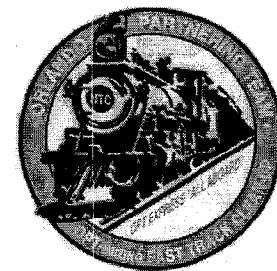
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Enclosures

c: Mr. Rick Allen, Harding Lawson Associates  
Mr. David Grabka, FDEP  
Mr. Wayne Hansel, SOUTHDIV  
Mr. Mark Perry/File, Tetra Tech NUS  
Ms. Nancy Rodriguez, USEPA Region 4  
Ms. Vickie Stitt, Tetra Tech NUS (2 copies)  
Mr. Steve Tsangaris, CH2M Hill  
Ms. Debbie Wroblewski, Tetra Tech NUS (cover letter only)  
File/Edb



# Update on Environmental Actions at Herndon Annex Naval Training Center Orlando, Florida



*This fact sheet was prepared to inform interested citizens about the former Naval Training Center (NTC), Orlando environmental program. Fact sheets will be distributed as needed to keep the community updated on program developments. Additional copies of these fact sheets can be obtained by calling Wayne Hansel at (843) 820-5572.*

## NTC Orlando's Environmental Program

Environmental studies and cleanup actions are currently underway at the former NTC, Orlando as part of the Department of Defense's Installation Restoration (IR) Program. Through this program, areas of known or suspected contamination from past practices and operations are being identified, evaluated, and, if necessary, cleaned up.

## Herndon Annex Location and History

One area where work is being performed is NTC's Herndon Annex (Figure 1), which has been designated Study Area 2. The Herndon Annex is approximately 1.5 miles south of the former NTC Main Base and adjacent to the city-owned Orlando Executive Airport. Private housing and Lake Barton are located east of the site.

The annex property was used for civilian and military aviation at various times from 1940 to 1968, when the Navy acquired the site. Herndon Annex provided support activities to the Main Base, including a supply warehouse. NTC, Orlando was closed in April 1999 as part of the Defense Base Realignment and Closure Act of 1990.

## Groundwater Investigation Results

The site screening investigation of Study Area 2 was performed from July 1994 through December 1998. The results of the investigation are described in a report entitled *Base Realignment and Closure, Environmental Site Screening Report, Study Area 2, Herndon Annex* (Harding Lawson Associates, July 1999). Since completion of the site screening investigation, the groundwater has been sampled and analyzed on a

quarterly basis to evaluate trends in the groundwater quality.

The investigation identified the presence of benzene in groundwater at concentrations exceeding the State of Florida maximum contaminant level (MCL) of 1 microgram per liter. (See the box on the following page for information on benzene.) The benzene contamination is primarily confined to the southeastern corner of Herndon Annex at depths ranging from 40 to 62 feet. The shallow groundwater does not contain benzene. Figure 2 shows the location and concentrations of the benzene plume.

## Groundwater Cleanup

Although the benzene will naturally degrade over time, it is estimated that the time required to reduce the benzene to acceptable levels is 30 years. There are

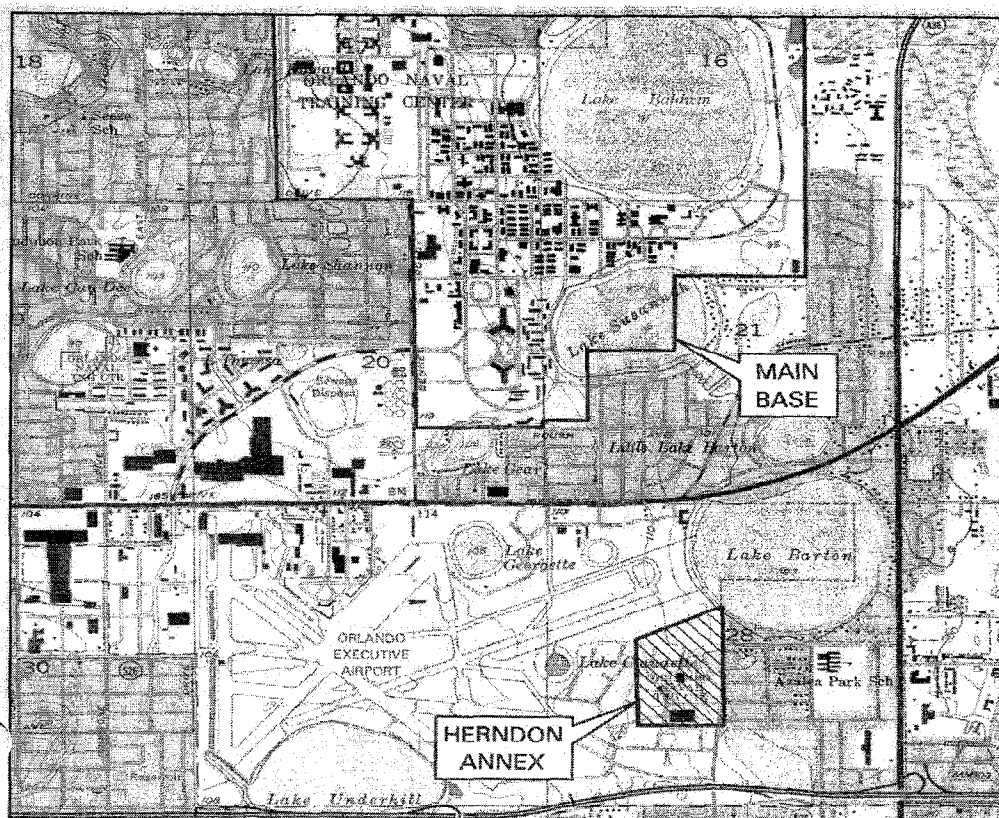


Figure 1. Herndon Annex location.

microorganisms present in soil and groundwater that will break down the benzene, but these microorganisms need oxygen to grow and consume the benzene. The oxygen concentration present in the groundwater at a depth of 50 feet is too low to encourage microbial growth. The Navy would like to speed up these natural processes by injecting an oxygen-containing compound into the water.

The Navy plans to use hydraulic equipment to push small rods (about  $\frac{3}{4}$  inch in diameter) into the ground to a depth of 55 feet. Oxygen Release Compound (ORC<sup>®</sup>), a trade name for magnesium peroxide ( $MgO_2$ ), will then be injected through the rods in the area of the highest benzene concentrations shown in Figure 2. When the ORC is mixed with water it has the consistency of a milk shake. The product is not harmful and will slowly release oxygen into the groundwater for about 6 months. This will help the microorganisms to grow and therefore speed up the breakdown of the benzene.

The Navy plans to punch about 300 holes for the ORC injection. The approximate locations of the injection points are shown in Figure 2. Before the ORC can be injected some trees and brush will be cleared, then a drilling company and environmental professionals will inject the ORC. This will take about 30 days. The Navy is also going to install 15 small monitoring wells on Study Area 2 property to monitor the microbial activity

and progress in degrading the benzene. The fieldwork is scheduled to begin in December 2000 with brush clearing followed by the ORC injection.

### What is Benzene?

*Benzene is a colorless liquid that smells like gasoline. It evaporates at room temperature and burns easily. Benzene occurs naturally in coal tar and petroleum. It is also found in commonly used products like paints, inks, gasoline and other motor fuels, and insecticides. People are exposed to benzene by inhaling gasoline vapors, working with carpet glue, varnish, and paints, and through use of tobacco products.*

### For More Information...

If you have questions about the Navy's action at Study Area 2, or on the environmental program at the former NTC, Orlando in general, please contact Mr. Wayne Hansel at the (843) 820-5572. Reports on the work at can be reviewed at the following location:

**Orange County Public Library  
Orlando Branch (2nd floor)**  
101 East Central Boulevard  
Orlando, Florida 32801  
(407) 425-4694

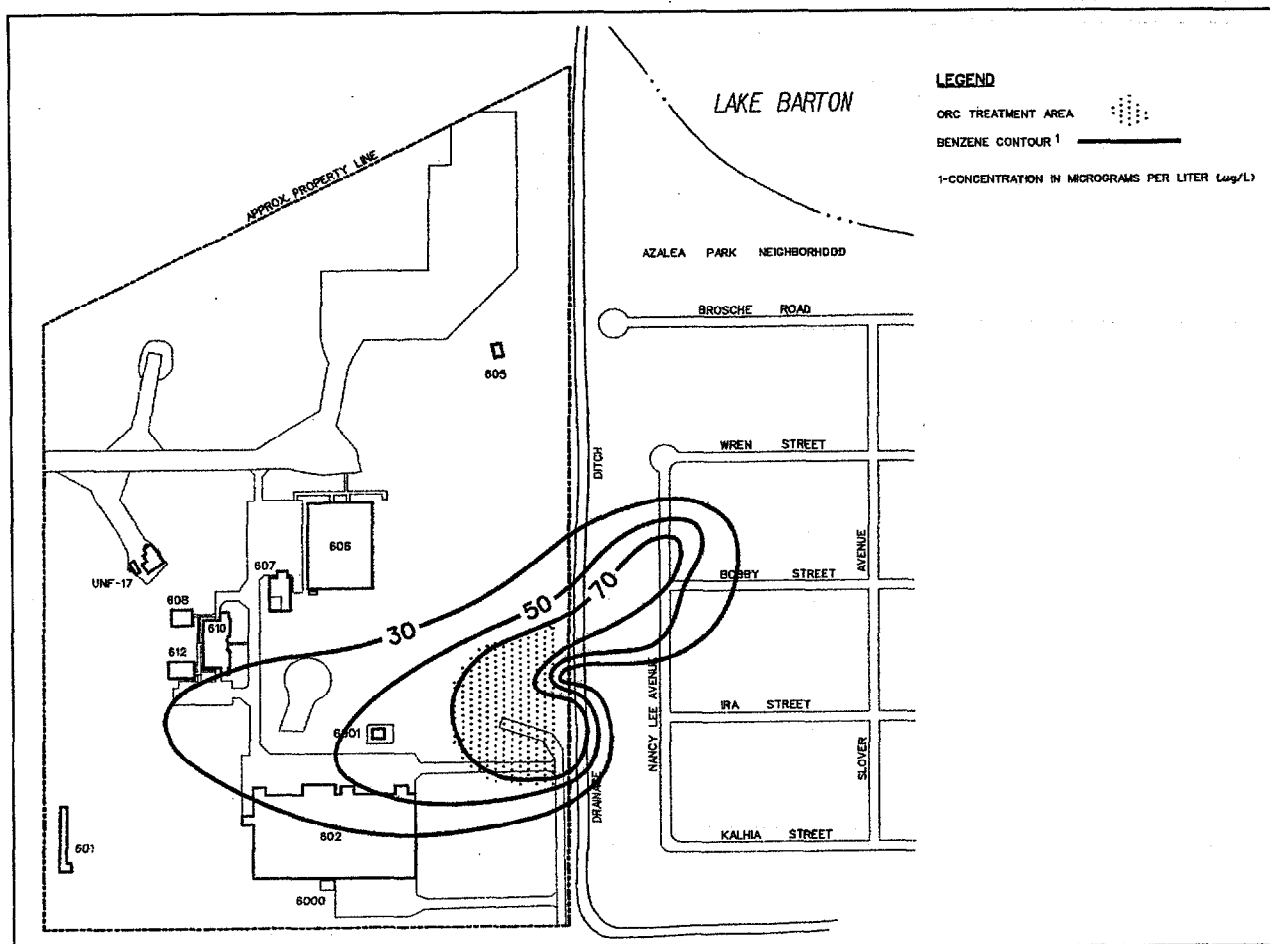


Figure 2. ORC Treatment Area at Study Area 2.